Serial No.: 10/663,925 Confirmation No.: 2297 Filed: September 16, 2003

For: POLYMERS WITH SOFT SEGMENTS CONTAINING SILANE-CONTAINING GROUPS, MEDICAL

DEVICES, AND METHODS

Amendments to the Claims

This listing of claims replaces all prior versions, and listings, of claims in the aboveidentified application:

1. (Currently amended) A segmented polymer comprising one or more soft segments comprising silane-containing groups, wherein the soft segments are derived from a compound of the formula:

$$HO-R^1-Si(R^2)_2-[-R^3-Si(R^2)_2-]_n-R^1-OH$$

wherein:

n = 1 or more;

each R¹ is independently a straight chain or branched alkylene group optionally including heteroatoms;

each R² is independently a saturated or unsaturated aliphatic group, an aromatic group, or combinations thereof, optionally including heteroatoms; and

each R³ is independently [[a]] an unsubstituted straight chain alkylene group that contains more than 4 carbons, a phenylene group, or a straight chain or branched alkyl substituted phenylene group, wherein each R³-optionally includes heteroatoms;

with the proviso that the polymer is substantially free of carbonate linkages.

- 2. (Original) The polymer of claim 1 which is substantially free of urea linkages.
- 3. (Original) The polymer of claim 1 wherein n = 1 to 50.
- 4. (Original) The polymer of claim 1 wherein each R¹ is independently a straight chain or branched (C3-C20)alkylene group.

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5. (Original) The polymer of claim 1 wherein each R² is independently an alkyl group, a phenyl group, or an alkyl substituted phenyl group.

- 6. (Original) The polymer of claim 5 wherein each R² is independently a straight chain or branched (C1-C20)alkyl group, a phenyl group, or a straight chain or branched (C1-C20)alkyl substituted phenyl group.
- 7. (Original) The polymer of claim 6 wherein each R² is independently a straight chain (C1-C3)alkyl group.
- 8. (Original) The polymer of claim 1 further comprising urethane groups.
- 9. (Currently amended) The polymer of claim 1 wherein each R³ is independently a (C1-C20) an alkylene group containing no greater than 20 carbon atoms.
- 10. (Currently amended) The polymer of claim 1 wherein each R³ is independently a (C4-C12) an alkylene group containing no greater than 12 carbon atoms.
- 11. (Original) The polymer of claim 10 wherein each R³ is independently a (C6-C10)alkylene group.
- 12. (Cancelled)
- 13. (Original) The polymer of claim 1 which is a biomaterial.
- 14. (Original) The polymer of claim 1 which is substantially free of ether and ester linkages.

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15. (Original) The polymer of claim 1 which is linear, branched, or crosslinked.

- 16. (Original) The polymer of claim 1 further comprising one or more soft segments derived from a diol that does not contain a silane-containing group.
- 17. (Original) The polymer of claim 1 further comprising one or more hard segments derived from a chain extender.
- 18. (Withdrawn currently amended) A medical device comprising a segmented polymer comprising one or more soft segments comprising silane-containing groups derived from a compound of the formula:

$$HO-R^1-Si(R^2)_2-[-R^3-Si(R^2)_2-]_n-R^1-OH$$

wherein:

n = 1 or more;

each R¹ is independently a straight chain or branched alkylene group optionally including heteroatoms;

each R² is independently a saturated or unsaturated aliphatic group, an aromatic group, or combinations thereof, optionally including heteroatoms; and

each R³ is independently [[a]] <u>an unsubstituted</u> straight chain alkylene group <u>that</u> <u>contains more than 4 carbons</u>, a phenylene group, or a straight chain or branched alkyl substituted phenylene group, wherein each R³-optionally includes heteroatoms;

with the proviso that the polymer is substantially free of carbonate linkages.

19. (Withdrawn) The medical device of claim 18 wherein the segmented polymer is substantially free of urea linkages.

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- 20. (Withdrawn) The medical device of claim 18 wherein n = 1 to 50.
- 21. (Withdrawn) The medical device of claim 18 wherein each R¹ is independently a straight chain or branched (C3-C20)alkylene group.
- 22. (Withdrawn) The medical device of claim 18 wherein each R² is independently an alkyl group, a phenyl group, or an alkyl substituted phenyl group.
- 23. (Withdrawn) The medical device of claim 22 wherein each R² is independently a straight chain or branched (C1-C20)alkyl group, a phenyl group, or a straight chain or branched (C1-C20)alkyl substituted phenyl group.
- 24. (Withdrawn) The medical device of claim 23 wherein each R² is independently a straight chain (C1-C3)alkyl group.
- 25. (Withdrawn) The medical device of claim 18 further comprising urethane groups.
- 26. (Withdrawn currently amended) The medical device of claim 18 wherein each R³ is independently a (C1-C20) an alkylene group containing no greater than 20 carbon atoms.
- 27. (Withdrawn currently amended) The medical device of claim 18 wherein each R³ is independently a (C4-C12) an alkylene group containing no greater than 12 carbon atoms.
- 28. (Withdrawn) The medical device of claim 27 wherein each R³ is independently a (C6-C10)alkylene group.

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- 29. (Cancelled)
- 30. (Withdrawn) The medical device of claim 18 wherein the polymer is a biomaterial.
- 31. (Withdrawn) The medical device of claim 18 wherein the polymer is substantially free of ether and ester linkages.
- 32. (Withdrawn) The medical device of claim 18 wherein the polymer is linear, branched, or crosslinked.
- 33. (Withdrawn) The medical device of claim 18 wherein the polymer further comprises one or more soft segments derived from a diol that does not contain a silane-containing moiety.
- 34. (Withdrawn) The medical device of claim 18 wherein the polymer further comprises one or more hard segments derived from a chain extender.
- 35. (Cancelled)
- 36. (Cancelled)
- 37. (Cancelled)
- 38. (Cancelled)
- 39. (Withdrawn currently amended) A method of making a segmented polymer, the method comprising: combining a polyisocyanate with a compound of the formula:

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Amendment and Response Under 37 C.F.R. §1.116 - Expedited Examining Procedure

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$$HO-R^1-Si(R^2)_2-[-R^3-Si(R^2)_2-]_n-R^1-OH$$

wherein:

n = 1 or more;

each R¹ is independently a straight chain or branched alkylene group optionally including heteroatoms;

each R² is independently a saturated or unsaturated aliphatic group, an aromatic group, or combinations thereof, optionally including heteroatoms; and

each R³ is independently [[a]] an unsubstituted straight chain alkylene group that contains more than 4 carbons, a phenylene group, or a straight chain or branched alkyl substituted phenylene group, wherein each R³ optionally includes heteroatoms;

with the proviso that the polymer is substantially free of carbonate linkages.

40. (Withdrawn) The method of claim 39 wherein the segmented polymer comprises urethane groups.